



# Conformity Assessment in the U.S. Regulatory System

---

Al Ramirez  
Manager, Regulatory Services  
Underwriters Laboratories Inc.

---



# Presentation Topics



- U.S. Regulatory System
  - ◆ Federal Level
  - ◆ State Level
  - ◆ Municipality
- Codes/Regulations
  - ◆ Type
  - ◆ Development
- Conformity Assessment
  - ◆ Process
  - ◆ AHJ/Official Responsibility

# U.S. REGULATORY SYSTEM.

- ◆ Federal – Constitution (Amendment X)  
State retain regulation of building safety
- ◆ State - Set general policies
  - Create Codes
  - Adoption of codes
    - ◆ Statewide
    - ◆ Individual Municipalities
  - Regulators (Empowerment, Licensing, etc.)

# U.S. REGULATORY SYSTEM.

Municipality – Create general policies to fit local needs

- ◆ Set local level of safety for building requirements
- ◆ Identifies enforcement tool – Local or Existing Codes
- ◆ Identifies “Official” – AHJ, Inspector, Building Official, Fire Marshall, etc.
  - Provides safety to citizens through enforcement of code

# U.S. REGULATORY SYSTEM

- ◆ Approx. 40,000 regulatory jurisdictions exist in U.S.
- ◆ System Issues
  - Decentralized system
  - Municipality documents can be dated
  - Different levels of safety

# Codes

---

## Major Code Organizations

- ◆ NFPA
- ◆ ICC
- ◆ IAPMO

# Codes

## Development of codes

- ◆ Code Committees are made up of interested parties
  - Manufacturers, Consultants, Fire Service, Certification Organizations, etc.
- ◆ Public hearings
- ◆ Consensus process

# Codes

---

## Basic Types

- ◆ General – Electrical, Fire, Mechanical, Plumbing, Accessibility, etc.
- ◆ Product specific - Sprinklers, Generators, Tanks, Air Conditioning Systems, etc.



# Codes

---

## Code requirements

- ◆ Establish minimum level of safety
- ◆ Installation Limitations
- ◆ Test methods
- ◆ Maintenance
- ◆ What is to be inspected
  - New
  - Existing

# Codes

---

## Development of requirements

- ◆ Experience from built environment
  - Product usage
  - Common practice
- ◆ Fire data

# Codes

---

## Requirements Drive

- ◆ Demand Product Testing/Certification
- ◆ Demand of Accreditation
- ◆ Provide minimum outline of  
Conformity Assessment process

# Conformity Assessment

ISO/IEC 17000 -

Conformity Assessment - demonstration that specified requirements relating to a product, process, system . . . are fulfilled

# Conformity Assessment

Federal, State and Municipality set foundation

Adopted Codes cover remainder of  
Conformity Assessment Process

- ◆ Administration section
- ◆ Gives AHJ/Building Official responsibility of enforcing codes

# Conformity Assessment

AHJ/Building Official is required to

- ◆ Review Construction Plans
- ◆ Issue permits
- ◆ On-site inspections
  - Verifies compliance to Code requirements
  - To referenced standards
    - ◆ Testing of product
    - ◆ Product Certification

# Conformity Assessment

AHJ/Official is required to (cont.)

- ◆ Required to determine type of conformity assessment that is acceptable.
- ◆ Appeals
- ◆ Issues Certificate of Occupancy
- ◆ Annual inspections



**Thank You!**  
**Xie Xie!**





**Underwriters  
Laboratories Inc.®**

**Al Ramirez**  
**alfredo.m.ramirez@us.ul.com**  
**Phone: (847) 664-2905**  
**Fax: (847) 313-2905**

## **UL-CCIC Company Limited**

<b>China Headquarters-Shanghai</b>	<b>Suzhou Laboratory</b>	<b>Beijing</b>	<b>Guangzhou</b>
<b>Doug Johnson</b>	<b>Cannon Sun</b>	<b>Daniel Chen</b>	<b>Wendy Lee</b>
<b>General Manager</b>	<b>Branch Manager</b>	<b>Deputy Branch Manager</b>	<b>Branch Manager</b>
<b>Tel: (21)-5292-8680</b>	<b>Tel: (512) 6808 6400</b>	<b>Tel: (10)-6787-3739</b>	<b>Tel: 20-8348 6999</b>
<b>Fax: (21)-5292-9515</b>	<b>Fax: (512) 6808 4099</b>	<b>Fax: (10)-6787-4606</b>	<b>Fax: 20-8348 6777</b>